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### You are the rats: Action research, academic forums and the reflective practice of professional bricoleurs

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# You are the rats: Action research, academic forums and the reflective practice of professional bricoleurs

## Abstract

"I saw the University as helping us to reflect on what we are doing- they are the expert reflectors. This is particularly what I saw as X's role. Sometimes his inteljections go above their heads, and his nine words or less, statements need to have some explanation, and I should feed this back to him. I also see the University as playing a visionary role, helping to show us new things, about what is possible. I don't see the University as helping to pull the team together - that is when it gets confusing. They are observing us, they are looking at us as the rats, and when they see something that they think needs to be addressed, they can feed this back to us - and this is where teaching and formal learning comes in. This is a difficult role for the University. I can see some of the University people just squirming, you can see it in their face, that they want to intervene. They know something about what we are doing but are not imparting the knowledge. This can piss people off. They are withholding what they know and not helping. But it can also piss people off if they come in too early, and tell us what is going on and what to do, and not let us wallow around for a while, and learn. This is what I see as a major problem for the University. As you observe us, at what point do you reflect the learning and feedback, and yet not prostitute the learning or dirty the data. ... We are the rats, the factory is your laboratory. But when we are looking at the role of the University, you are the rats." Plant Manager and Industry Sponsor of an Action Research Project

## Keywords

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## Disciplines

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## **‘You are the Rats’:**

### **Action Research, Academic Forums and the Reflective Practice of Professional Bricoleurs**

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“I saw the University as helping us to reflect on what we are doing- they are the expert reflectors. This is particularly what I saw as X’s role. Sometimes his interjections go above their heads, and his nine words or less, statements need to have some explanation, and I should feed this back to him. I also see the University as playing a visionary role, helping to show us new things, about what is possible. I don’t see the University as helping to pull the team together - that is when it gets confusing. They are observing us, they are looking at us as the rats, and when they see something that they think needs to be addressed, they can feed this back to us - and this is where teaching and formal learning comes in. This is a difficult role for the University. I can see some of the University people just squirming, you can see it in their face, that they want to intervene. They know something about what we are doing but are not imparting the knowledge. This can piss people off. They are withholding what they know and not helping. But it can also piss people off if they come in too early, and tell us what is going on and what to do, and not let us wallow around for a while, and learn. This is what I see as a major problem for the University. As you observe us, at what point do you reflect the learning and feedback, and yet not prostitute the learning or dirty the data. ... We are the rats, the factory is your laboratory. But when we are looking at the role of the University, you are the rats.”  
*Plant Manager and Industry Sponsor of an Action Research Project*

#### **1. Introduction**

Action research involves conducting research projects that combine actions that contribute directly to the needs of practitioners and research that results in generalizable knowledge that is of value for social science. In practice this is often not achieved. As French and Bell (1999) put it in their classic organisational development text,

“The payoff from a good action research project is high: practical problems get solved, a contribution is made to the theory and practice of behavioural science, and greater understanding grows among scientist, practitioner, and layperson...(yet often)...researchers become overly client-centred and focus only on action, not research; they do not define problems from the perspective of the client; they do not study the processes of their own interventions; they neglect to test hypotheses; and they continue to work within the paradigm of ‘normal science’”  
(French and Bell, 1999:138)

As action research has gained in popularity during the 1980s and 90s (Buchanan and Huczinski, 2000), it is arguable that this dilemma has been heightened. On the one hand there are extreme pressures for universities to obtain industry funding and increase their relevance, and academics are encouraged and supported to carry out action research projects.

On the other hand, there are growing differences between the needs of industrial practitioners and academics. Industry practitioners are more aware of the limitations of 'witch doctors' and 'management fads and fashions', and impose greater pressure on competing sub-contractors to produce measurable results. In the meantime, academic communities have become more specialised, and more rigorous measures introduced to measure academic quality in terms of relevance to these highly specialised audiences. The pressures on action researchers to deliver to both audiences have, consequently, grown, thereby increasing the difficulties facing action researchers. There is the ever-present danger that action research projects will not deliver on the promise of both practical and academic relevance but become, in the words of Stephen Barley (private communication, July 1999) 'bad action and bad research'.

In this difficult context, it is arguable that the future value of action research will depend strongly upon whether action researchers can improve their skills and abilities in addressing the problems faced and building upon the opportunities that are being presented. This improvement in skills and abilities is not, however, simply a matter of individual experience and effort, but an issue for collective reflection amongst action researchers. The purpose of this paper is to help contribute to such reflections.

From a learning perspective, each action research project can be seen as a process experiment. Each involves the deliberate use of methods and techniques to address the needs of diverse client and academic audiences but, like every experiment, the predicted results may not occur. Whether or not this constitutes a 'failure' depends on what is learnt from the experiment. The forums for academic debate on action research, in conferences and journals, can support such process learning if they encourage the kind of open and honest reflection upon and discussion of action research practices and achievements as that recommended in the classic work of Argyris and Schon (1974) on increasing professional effectiveness by creating the conditions for 'double loop' learning'.

This paper argues that there are a number of existing barriers to creating such learning conditions and enhancing the effectiveness of action researchers, and that conditions need to be put in place to overcome such barriers. Firstly, the acute tensions and dilemmas in action research practice need to be fully recognised, often in the face of institutional pressures to de-emphasise such problems. Secondly, the imperialist view of knowledge embedded in traditional 'clinical' organisational development (OD) view of action research as 'science' needs to be abandoned, and recognition given to the fact that action research is also an uncertain and ethically complex exercise in 'bricolage'. Thirdly,

academic forums need to be created to support open and honest reflection and dialogue ('reflective practice') amongst action researchers, in a manner that may come into conflict with traditional academic practices. This paper makes these arguments in the course of providing reflections upon one action research project undertaken as part of an action research program between an Australian university and a local multinational steel company.

## **2. Tensions and Dilemmas in Action Research Practice**

As Nietzsche once remarked, 'if you can define a concept, then it has no history'. There can be no simple definition of action research, as it has been used by psychologists and socio-technical researchers and practitioners in the UK in the early 1950s onwards, organisational development researchers and practitioners in the US from the late 1950s, more or less politicised European projects combining socio-technical with industrial democracy concerns in Scandinavia, Germany and the Netherlands from the 1960s to the 1990s and so on (Einjatten, 1992). In recent years, with the commitment of a larger number of management academics to qualitative research, there has arguably been more interaction and dialogue between ethnographic participant observers, grounded theory exponents and action researchers than has previously been the case (Gummerson, 2000). Moreover, as 'critical' management researchers are now advocating a greater commitment to 'transformative re-definition' (Alvesson and Deetz, 2000), there may be a growing move away from the traditionally very strong connection between action research and the 'piecemeal social engineering' and 'social pathology' philosophy predominant in US organisational development.

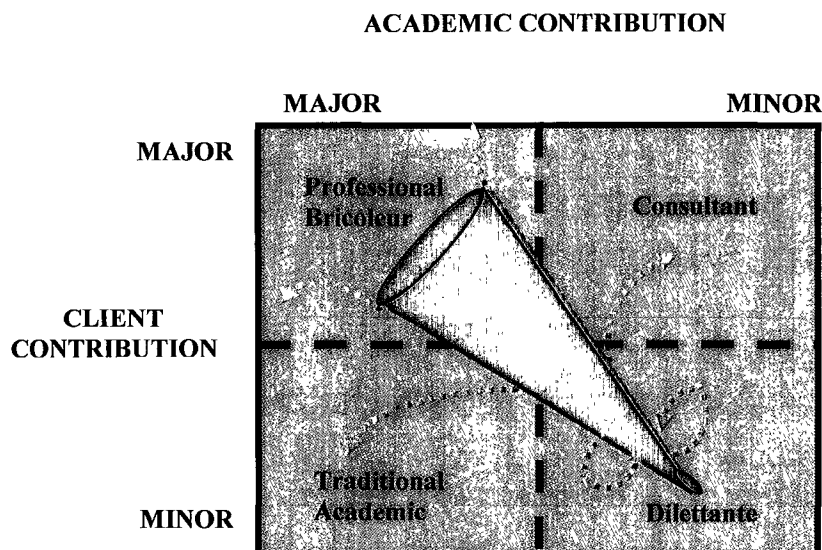
Whatever the definition, however, there is a common thread that action research involves a commitment to addressing both the problems of organisational clients as well as the interest of academic social scientists in generalized understanding of organisational processes. Controversies exist over who these clients may be, how they may best be served and the nature and desired form of social scientific knowledge. However, the fundamental duality of purpose is rarely questioned.

For the traditional US OD view of action research, this duality poses no *fundamental* problem. In the spirit of Lewin, and his classic statement that 'there is nothing so practical as a good theory', a pragmatist view of knowledge is adopted, whereby there is no fundamental difference between the problem focused inquiry of the practitioner, the processes of individual and organisational learning, and the process of action research (French and Bell, 1999). Each involves, in extremely crude terms, some variant of what has now become the credo of the total quality management community –

the PDSA 'Plan-Do-Study-Act' cycle. Some combination or version of action, evaluation, reflection, generalization, and experimentation is put forward as a universal form of inquiry. In part, this general view supports the optimism of many OD academics and practitioners about the practical and theoretical value of action research.

Whether or not such a universalistic approach is justified, and it is quite controversial, in practice there are considerable and fundamental tensions between the different partners in action research projects. As outlined in Badham and Ehn (2000), this involves tensions between the different time perspectives, problem solving styles and desired outcomes of academics and practitioners, however it also involves conflicts and disagreements between academic disciplines about how problems and issues are to be conceptualised (also see Badham, Garrety and Kirsch, 2001) for a case study of such conflicts). As emphasised and explored in the literature on 'communities of practice', what counts as knowledge and learning varies substantially between groups and locales. Action researchers attempting to address the problems of specific industrial clients as well as the demands of particular academic audiences often face great difficulties in meeting and reconciling these conflicting claims on their time and attention.

Figure 1 provides one way of diagrammatically representing these tensions.



**The Action Research 'Funnel'**

**FIGURE 1**

The formal purpose of action research is to remain within the 'funnel' i.e. to move from a situation of minor contribution to client or academia to a situation where a major contribution has been made to both. During the process of any action research project, there will be dilemmas and tensions between the conflicting demands of both stakeholder groups. The successful action researcher manages to reconcile these problems and remain within the funnel. They avoid giving unrealistic expectations to the client or academic audiences, utilise effectively the resources at their disposal, and makes sure that both client and academic concerns are addressed without sacrificing either. The action researcher who succeeds in this task plays an important 'bricoleuring' role, making do with the client and academic resources at his or her disposal, and amalgamating them in a more or less ad hoc fashion, but in a manner that is informed by a deep understanding of each and how to reconcile their conflicting demands (Weick,2001). In so doing the action researcher can be seen to be acting as a 'professional bricoleur' (Badham and Ehn,2000).

Some action researchers may, however, resolve these conflicts by paying less attention to the client, and pursuing academic objectives, in the process beginning to move towards a more traditional academic role. For example: a new researcher doing a Ph.D may feel that fulfilling the demands of a Ph.D becomes increasingly important for their career as they become overburdened by the complexity of data and issues in the project and the need to fulfil Ph.D formats and requirements; the publication pressures on an academic may increase at just the time when they have become more trusted and valuable "colleagues" of industry practitioners and, as grants are expected to have produced deliverables and university research audits require publications, the action researcher may turn to addressing such issues at the expense of following through on client project outcomes etc. On the other hand, as the project progresses, the action researcher may resolve such tensions by concentrating on fulfilling the needs of the client at the expense of academic concerns, and then they become closer to playing a traditional consultant role. Numerous examples exist of academics who begin to rail against the narrow, ivory tower, infighting and overspecialisation of academia, and begin to publish less while their consultancy activities and income grow. Within a project, this may mean honourably justifying the trust and commitment that has been given to the action researcher by an industrial practitioner who has 'gone out on a limb' to support the action research project, and work with the client to ensure that the benefits they are required to produce are actually achieved.

In contrast to all three solutions, the action researcher may try to reconcile the demands of both audiences, and end up by failing to satisfy either. With excessive demands on time, the publications may be of low quality and the benefits to the

client rather dubious. The action researcher then appears as a tinkerer or a dilettante, dabbling in real world practice and academia, without being accepted by either community as having contributed anything worthwhile.

As discussed elsewhere (Badham, Couchman and Linstead, 1996), there are now considerable pressures on academics to tell 'success stories' about their projects and, as the joke goes in regard to doctors, 'bury their mistakes'. Government funding bodies foster a 'cult of the deliverable', whereby projects have to show how they have created useful deliverables from one project, in order to obtain funding for the next. University administrators seek to ensure the continued flow of industry funding as well as competitive research grants, without any real concern for the long term gains for the industry clients or the real quality of academic output. If people within the often complicated 'client system' in action research projects can be persuaded to praise the project, and, lower quality interdisciplinary journals and conferences can acknowledge and publish output, then projects can be presented as 'successes', even when serious doubts exist about their value. There is, consequently, less incentive to provide an open and critical discussion of the problems and dilemmas facing real world action research projects. As pressures build to slip into more traditional academic or consultant roles, rather than such pressures being analysed and solutions found to address them, energy will be directed towards covering up any weaknesses in addressing client or academic needs.

If such negative spirals are to be combated, then more knowledge and action is needed to improve the professional bricoleuring of action researchers in their attempt to remain within the 'funnel' and achieve substantial benefits for clients and academia. As French and Bell emphasised in the quote at the beginning of this paper, the potential benefits are substantial. As Lewin stressed, action research provides the potential for academics to gain access to valuable data that they could otherwise not collect. These range from basic access being given to those who are seen as providing potential benefits to the client, through the confidences being given to 'insiders' and the insights gained from experiencing at first hand the dilemmas and problems of change, to more formal forms of collaboration in testing academic theories and hypotheses in real world experiments. If, as Barley and Kunda (2001) have recently emphasised, more extensive empirical investigation is required of 'post-bureaucratic' forms of work, action research can be an important and valuable method of gaining access to such data. Moreover, action research makes it possible to obtain industry funding for academic research at a time when government funding of basic social science research is declining, and allows researchers to obtain access to government funding of collaborative industry-academic research. In so doing, there may also be potentials for overlapping teaching and research activities, in ways that substantially improve the



quality of teaching materials and use corporate teaching/learning activities as aids for research data collection, hypothesis testing and so on. If such potentials are to be realized, however, the twin dangers of exploiting/harming collaborative clients or subordinating academic values/resources to industrial/client demands need to be carefully addressed and avoided in often quite difficult conditions.

### **3. Clinical Scientific Diagnosis versus Professional Bricoleurs**

As we have argued elsewhere offered (Badham and Buchanan,1996), many managerial humanist approaches to change (Alvesson,1987) operate with a restricted depoliticised view of their role in organizations. Often, researchers are identified as 'social pathologists', using objective social science methods and data to diagnose 'problems' for 'the organization'. Criticisms abound of the assumptions that are often made about the alleged neutrality and good intentions of the researchers, the functionalist perspective on organisational problems, and the restricted range of 'solutions' that are offered (Badham and Buchanan,1996; Buchanan and Badham,1999). Our concern here, however, is more specifically with the tendency to offer a restricted view of the kind of knowledge exercised by 'action researchers' in their organisational practices.

The OD tradition of action research has two intertwined strands of thought on knowledge and action. On the one hand, OD is strongly linked with images of 'planned change', fixed sequences of moving from one 'frozen' state to another, and applying the insights of 'behavioural science' to diagnose organisational 'problems' in moving from one state to the other (Dawson, 1994). Such a viewpoint is suggested by definitions of OD such as 'Organization development is a planned process of change in an organization's culture through the utilization of behavioural science technology, research and theory.' (Burke, cited in Waddell, Cummings and Worley, 2000.2). Whereas there is an understanding that OD is both a 'professional field of social action' and an, 'area of scientific inquiry' (Waddell, Cummings and Worley, 2000: 1), the former is really treated as a technical application of the latter. Within such a view, action research is understood as a rather narrowly defined form of applied science. Alternatively, OD is associated with a less rigid view of change, one that is more iterative and cyclical in character, an approach that may be more in accordance with the sophistication of Lewin's original work. The commitment to organizational learning that informs the classic 'action science' approach of Argyris and Schon (1974), may be seen as an approach that seeks to help managers reflect upon the complex nature of change processes and their actions, and create conditions for ongoing learning through 'reflective

practice' that enhances their professional effectiveness. If such an approach is consistently applied to action research, then an important part of the professional knowledge and skill of action researchers is the ability to reflect on their practice in a way that goes beyond the narrow confines of traditional scientific analysis.

When classic OD texts reflect upon OD practice, they often acknowledge the importance of such skills and activities. Waddell, Cummings and Worley (2000), for example, emphasise the importance of developing intra-personal skills (including advanced 'entrepreneurial' skills), interpersonal skills (including negotiation, coaching etc.), and 'general consultation skills' that include not just diagnosis but also how to 'design and execute an intervention', involving the practical tasks of 'tailoring the intervention to the situation' and 'using information about how the change is progressing in order to guide implementation'. (Waddell, Cummings and Worley, 2000, p.51). French and Bell (2000) go further to address some broader issues. These include: applying the reflective learning principles of action research to the action research initiative itself; better capturing historical knowledge about factors enhancing the success of OD initiatives, and addressing the importance of increasing OD practitioner interpersonal, political and cultural skills to ensure that OD techniques are effectively applied in context.<sup>1</sup>

The latter exercise involves the adoption of a broader view of the role and knowledge exercised by the action researcher than the narrower model of the applied scientist. This is more akin to what Weick (2001) has referred to as the 'improvisational' rather than 'architectural' model of organization redesign. As Weick puts it,

"Design, viewed from the perspective of improvisation, is more emergent, more continuous, more filled with surprise, more difficult to control, more tied to the content of action, and more affected by what people pay attention to than are the designs implied by architecture. Even though improvisation may involve more uncertainty, it does not thereby become any less effective. Emergent, continuous designing is sensitive to small changes in local conditions, which means the design is continuously updated as people and conditions change." (Weick, 2001: 61)

The action researcher, like any designer, has to 'do more with the simultaneous presence of seeming opposites' (Weick, 2001: 298) – in the case of the action researcher, this clearly involves attending to both client and academic needs. In

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<sup>1</sup> French and Bell (1999, p.263/4 & 265) question "whether the OD process itself will be subject to the ongoing action research being experienced by the client system. The issue of congruency is of course, important, but the viability of the OD effort and the effectiveness of the consultants may be at stake. Unless feedback loops relate to various interventions and stages in the OD process, the change agents and the organization will not learn how to make the future OD interventions more effective.", and go on to argue that "we wish more were known about the dynamics of OD efforts losing their momentum. Such additional knowledge would help consultants and clients to assess more objectively the extent of need for consultant assistance, how to improve the skills of the consultant and client in managing the OD effort, and how to rejuvenate the OD effort if rejuvenation is warranted."

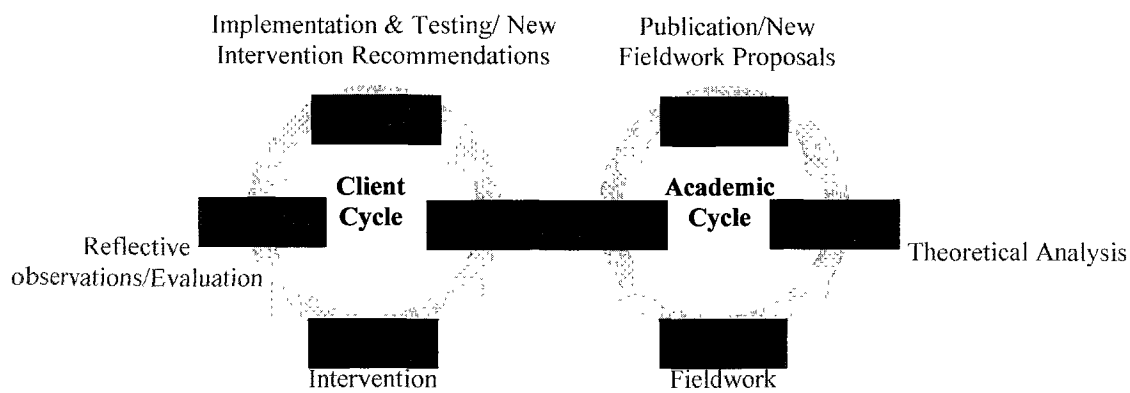
order to address such conflicts and complexities, the action researcher has to act more like a 'bricoleur' than an 'engineer', making do with whatever tools and materials are at hand, but collecting and assembling available raw materials and resources with an in depth understanding and experience that allows him or her to facilitate the emergence of new and improved solutions. The skill is in managing the:

“tension involved in mixing the intended and the emergent and the strong temptation to simplify in favour of one or the other; the possibility that order can be accomplished by means of ongoing ambivalent mixtures of variation and retention that permit adaptation to dynamic situations; the chronic temptation to fall back on well-rehearsed fragments to cope with current problems even though these problems don't exactly match those present at the time of the earlier rehearsal; the use of emergent structures as sources for embellishment which enables quick distancing from previous solutions....and the extensive amount of practice necessary to pull off successful improvisation.” (Weick, 2001:298)

If action researchers are to improve their skills and the effectiveness of their practices, their knowledge and skill as bricoleurs involved in such improvisatory practices needs to be recognised, addressed and made the subject of systematic reflection.

#### **4. Academic Forums as an Aid to Practical Reflection**

As outlined in Figure 2 below, the action research cycle involves two more or less interdependent PDSA cycles addressing client and academic needs. While many traditional OD models of action research regard these as one and the same cycles, the conflicting demands of client systems and academic audiences act to pull these apart. As such, they have to be regarded as more or less interdependent cycles, with a key role of the action researcher being to manage and integrate these cycles through ongoing bricoleuring activities. While much of the classic OD action research analyses emphasise the importance of ongoing feedback and reflection in consultation with clients in order to keep the project 'on track', far less attention is paid to the organization of systematic reflection through structured academic forums as part of the 'study' phase. This may be one of the reasons why many US academic researchers regard action research as contributing little to furthering academic knowledge of management and organizations.



### **Twin Cycles of Action Research**

**FIGURE 2**

If academic journals and conferences are to be established as forums for reflections on action research, that involve sharing 'warts and all' experiences of action research, certain conditions need to be created. If we draw on Argyris and Schon, 'action science' model to help conceptualise how such a forum could work, it is clear that what is desirable is to avoid creating academic reflections on action research that are akin to what Argyris and Schon refers to as an exchange of 'espoused theories' in a 'Model 1' world i.e. where what is communicated is, what actors consciously believe, or would like others to believe, about their actions, not a deep reflection upon what they actually do and the theories that guide them. Action is based on actors achieving their defined objectives, seeking to win not lose, suppressing negative feelings, and emphasising rationality. The main strategies are to control the environment and the task, and protect one-self. One's own views are treated as obviously correct, covert attributions and evaluations are made, and face saving moves are employed and embarrassing facts left un-stated. The results are defensive relationships, reduced production of valid information and little public testing of ideas.

If an exchange of information about action research fails to reflect on the complex, uncertain and difficult task of bricoleuring activities, and equally importantly, fails to adequately report problems and failures, then the limitations of a 'Model 1' world are likely to be reproduced, and the practice of action research unlikely to proceed. If, however, academic forums are opened up that are committed to sharing valid information about action research projects, and obtaining real input into the design and redesign of action research projects, than an alternative 'Model 2' environment might be created that has the potential to contribute to improving the practice of action research bricoleurs. Such an environment would, however, have to encourage the public testing and evaluation of one's actions, minimise defensive

relationships, and be committed to ongoing testing of ideas and assumptions in an open public debate about the conduct of action research practice.

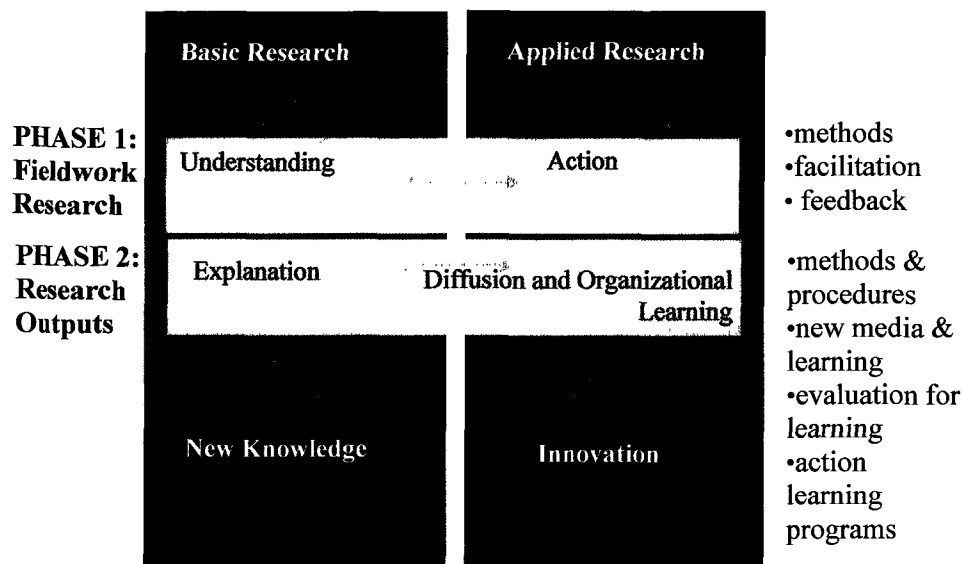
The following case study of action research is offered in a manner that seeks to communicate and encourage thought and discussion about the bricoleuring role of action research and, through critical reflection, to help improve action research practice. It is also intended as an example of how such an exercise in critical self-reflection, might be undertaken in an academic forum, and to show the value that has already been gained by using an academic forum (the current EGOS conference) in this manner.

## **5. The Program and the Case**

### ***5.1 The Program's View of Action Research***

The Centre for Change Management at the University of Wollongong has developed out of the Innovation and Organizational Change Program in the BHP Institute for Steel Processing and Products. The latter program was established with core funding from a local multinational resources company (BHP Steel) to assist the company in managing technology and cultural change. The first author, as head of the program, initiated a series of longitudinal case study projects, combining ethnographic and action research in an exploration of corporate processes of innovation and change. What emerged from the resulting interaction between industrial personnel and the university research team, was a general orientation towards action research.

Some of the main features of this approach are captured in Figure 3 below.



**Processual Action Research**  
**Centre for Change Management, University of Wollongong**

**FIGURE 3**

Each project has both fieldwork and research output phases, and possesses a basic research and applied research dimension. During the fieldwork stage, the main aim is to enhance the researchers' understanding of innovation and change processes. However, in order to legitimate long term access to the site, and provide some immediate assistance to the company, these researchers conduct various forms of action (introducing methods, facilitating groups, feeding back information on observations) as negotiated with the industrial partners. This phase is followed by a research output phase, where researchers analysed the data collected, and sought to systematise and generalise their observations, in a manner that contributes to academic understanding of innovation and change processes. At the same time, various methods are tried for feeding back, the observations and explanations made in the company in a manner that contributed more generally to their organisational learning. The latter involves, for example, communicating experiences gained through the production of documentary videos and the writing up methods and procedures.

The academic intent of the action research approach adopted is to use action research as one method of obtaining in depth observational as well as interview based data on innovation and change practices and processes as they occurred over time. Informed by a view of innovation as involving highly localised and politicised 'configurational' processes whereby generic methods and techniques are adapted and made to work in context (Badham, Couchman and McLoughlin, 2000), action research was undertaken as part of research initiatives to uncover the nature of these

practices. Many configurational practices are part of the tacit knowledge of experienced personnel, conflict with 'formal' views of innovation and change, and possess an informal and political character that often results in actors deliberately concealing their nature. Consequently, the kind of access to 'backstage' activities (Buchanan and Boddy, 1992) made possible by action research – through confidences revealed and observations made - is an important source of data for such projects. However, most of the projects also conduct more 'distanced' observation and interviews, either through additional researchers, or the action research shifting roles during the project. This is encouraged as it makes possible a broader and more reflective study of the processes that the action researchers had been involved in, while enjoying the kind of privileged access and data that the action research provided. This approach has been termed 'processual' action research as the main intent of each project is not to achieve immediate effects through successful interventions but, rather, to collect data on real world innovation processes, and feed this data and its analysis back to industry practitioners as well as academic audiences. The gains, in terms of access to data and familiarity with the subject matter are considerable, however these only come at a cost. The longitudinal nature of these projects is incompatible with industrial time scales, conditions in the organization change as projects are ended, personnel changed etc., and projects have to be resold and reshaped a number of times during the course of investigation. This requires considerable time and effort from the action researcher as well as a degree of luck. Moreover, the action researcher is always faced with tensions between redefining and restructuring the project to meet and ensure that the project has perceived value to new industrial collaborators, and continuing to collect, analyse and interpret the findings in a manner that makes a substantial contribution to current academic concerns and debates.

This approach to action research is, however, very general in character, and projects vary considerably, with some more committed to serving the needs of manual workers and others more strongly linked to management. Some have been more informed by symbolic interactionist concepts and orientations, others have been more closely tied to industrial sociology and critical management perspectives, while others, have been directly informed by more mainstream processual and management learning approaches to change. The case of action research explored in more detail in this paper was an initiative to develop a model for a project based learning architecture, drawing strongly on mainstream managerial organisational learning theory and practice.

## 5.2 *Project Based Learning Architecture Project*

In accordance with the general model for processual action research, this project involves an initial series of fieldwork studies and a subsequent period of analysis in order to generate the necessary research outputs. As was the case for each action research project, however, the fieldwork followed upon a 'pre-project' stage involving cooperation between academic and industry personnel in defining the nature and scope of the project. The project was initiated by the second author -Andrew, as a result of his extensive experience with industry projects. In most of these projects, he observed that very little learning occurred in the project teams, and where it did, it was often partial and ad hoc, usually occurring in spite of project pressures to perform rather than as a planned and systematic part of the project itself. Aware of many of the pressures on project participants that inhibited their learning, Andrew was interested in exploring whether it was possible to generalize about the conditions that support learning in projects and, if it was, to develop a model for a learning architecture to support project based learning. He was aware of some of the workshop initiatives taken by organisational development practitioners to promote individual learning on the part of individuals working in groups. However, these seemed to him to neglect many of the day to day work pressures and contextual conditions that acted in practice to inhibit individual and group learning. Following his appointment to the University of Wollongong Management Department as a Senior Research Fellow, Andrew enrolled in a Ph.D to explore this issue under the supervision of the first author, Richard, who is director of the University's Centre for Change Management.

One of the projects conducted by the Centre involves collaborative research with a plant manager who in June 1998 was transferred to the local (400 person) coke making plant with a brief to initiate a radical cultural change at the plant.<sup>2</sup> After a number of discussions, it was decided that an appropriate case study site for the project based learning project would be a management change project within the plant. This choice had the advantage of an already established access to a local site, the existence of good relations between the Centre and personnel in the plant, and both formal and informal background information on the plant, its managers, and the nature of the cultural change initiative.

Andrew had extensive industrial experience, and since his appointment had written a number of case study reports and conferences on change projects he had been involved in, and was familiar with some of the project management

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<sup>2</sup> The plant operates a continuous process of washing and then heating coal in a battery of ovens to make coke for a steel blast furnace located a kilometre away. It is part of a large, traditional, engineering dominated, and hierarchically organised steel company with what one consultant report characterised in Myers-Briggs terms as an 'ISTJ' culture of rationality, masculinity, eroding paternalism, increasingly insecure 'public service' career paths for managers, 'a silo' mentality between departments and divisions, and low trust relations between management and employees.



literature. However, he was not familiar with the extensive literature on organisational learning, nor had he been formally trained in social science methods. While it would have been desirable for him to have been more familiar with these concepts and methods prior to entry into the plant, the establishment of a suitable project at the plant in January 2000, meant that he began data collection on the project concurrently with his reading on these areas.

The project involved the 3 main Superintendents in the plant redesigning the plant's management structure and, in particular, their new roles and responsibilities during and after the culture change. The plant manager felt that these Superintendents needed to have support in developing their general 'leadership' skills, and there was seen to be an overlap of interest between his desire to upgrade these manager's skills and Andrew's interests in exploring the creation of a learning architecture to support project based learning. The aim of the project was defined as, firstly, to redefine their jobs; secondly, to practice new leadership skills and, thirdly, to learn from this process. A decision was made to have this project as the main case study for the Ph.D, and that an action research project would be established that supported the learning of the managers in the project and contributed towards the development of a model of a project based learning architecture.

Andrew made an initial decision when he began documenting the learning processes in the project team that he would delay any deliberate intervention into learning within the group. He had negotiated access by introducing himself as carrying out a research project to develop a model of a learning architecture, and informing the group that he both wished to use them as a case study of learning and would use his findings to help them in their learning processes. In order to delay any intervention, he was deliberately vague about when the plant would get his 'feedback' about 'how they were going'. Three main considerations were involved in this initial decision. Gummesson (2001) identified the first two considerations – of *access* and gaining an understanding of *preconditions* – as of crucial importance for action research. Firstly, a key component of any effective action research project is ongoing *cyclical* input into the flow of action. An unsuccessful initial intervention can cut short access and ruin the action research dimension of the project. Secondly, every qualitative investigation needs to gain an in depth understanding of the *preconceptions* that inform the interpretations of the actors and structure action in context. Andrew's background knowledge derived from his industrial experience was not matched by an intimate knowledge of culture and practices in this firm, the personalities of the actors involved, or the general literature on organisational learning and the organization of OD interventions. He,

consequently, decided to delay any feedback or intervention until he had a much better acquaintance with all the latter factors.

Thirdly, Andrew did not wish to appear as an opinionated industry practitioner attempting to impose his experiences in other locations on people in this project team. This would, he believed, create potential resistance to any advice that he offered during the project. As Chein, Cook and Harding (1948) outline it, there are major differences between '*diagnostic action research projects*' (scientist enters problem situation, diagnoses it, and makes recommendations for remedial treatment – recommendations are intuitively derived, not pre-tested, and usually come from scientists experience and knowledge, and recommendations are often not put into effect) and '*participant action research*' in which 'people who are to take action are involved in the entire research and action process from the beginning' (French and Bell, 2000 p.137). Andrew's aim was to avoid diagnostic action research, and establish a participative action research project that supported the ability of the project members to 'self-design' their learning program. This meant establishing trust and credibility prior to any treacherous leap into diagnosis.

In the course of the next few months, Andrew, informed by his observations of learning in the group as well as his reading of the social and psychological literature on organizational learning, began to develop a clearer model of the learning dimensions that interested him. Following his development of a model of the learning process within the project that included internal and external political conditions affecting project learning, Andrew identified a number of key dimensions of project based learning. These dimensions were conceptualised as: pyramid of authority, cognitive styles, learning relationships, learning mandate and environment, and knowledge management (Sense, 2001). The development of his model gave Andrew more confidence, as did his closer acquaintance with the paternalistic bureaucratic culture of the organization and the personalities of the project team members. As pressure increased from the group for him to give them 'feedback', he shifted from his non-interventionist stance into a more interventionist role.

Andrew's more interventionist role involved initiating, firstly, a series of one-on-one reflective learning interviews with each of the managers, using the learning dimensions as a basis for getting the managers to reflect on their learning activities, and develop and review individual action learning plans. Secondly, a series of group workshops designed to get the group to purposefully construct and reflect on their collective learning actions and achievements, again using the learning dimensions. It was Andrew's plan that, following the conclusions of these workshops, he would enter the

research output phase, writing up his Ph.D, based on his model of the learning dimensions, data on how these dimensions operated in the project he had observed, and his analysis of how the reflective use of the learning dimensions had influenced learning within the group. One of his main concerns during the interviews and workshops was his observation that the group did not appear to be functioning well as a leadership team and that, despite the reflective learning initiatives, the group remained highly dependent upon the plant manager to reflect upon and initiate changes in strategy and structure within the plant. The group had made little progress in redefining their jobs, while individually practicing new facilitative leadership techniques. As a group they did not appear to be moving outside their traditional relatively hierarchical, respectful and paternalistic managerial styles, and gave evidence of not trusting each other and relying on the Plant Manager to continue to define the main agenda and set the directions for the group. A key part of the dynamics appeared to be the deference given to the charismatic plant manager, and waiting for instructions from him. As one Superintendent reflected on his view that the team needed to participate in determining whether they have the skills and knowledge to be a member of the leadership team, another Superintendent commented:

*“From the actual discussion yesterday (in the Leadership session) we don’t need to do that and we should trust that to the leader and get on with it .....I am sure X has the answer for that!”*

In line with this expectation, the plant manager recently imposed upon this group a new ‘8 circle’ organisational redesign, and had asked the group to discuss and implement the new design.

In this situation, Andrew continued with his reflective workshops, without attempting to initiate any additional intervention to improve the group and learning processes within the group. Andrew gave three reasons for this focus. Firstly, he was concerned to progress his work on the learning dimensions, conclude his fieldwork, and begin his analysis. Secondly, he felt relatively unskilled in conducting interpersonal interventions in group learning dynamics and he felt that workshop based activities of such a kind, although possibly needed by this group, were of little long term value if the broader learning dimensions and context were not addressed. Thirdly, his use of the learning dimensions in reflective learning interviews and workshops had provided the space for the individual managers to reflect on their individual and group progress and design their own learning programs, and it was beyond the scope of his project to intervene to any greater extent. It was at this point that Andrew and his co-author Richard began to prepare for this conference.

### **5.3      *Reflection on the Project as Action Research***

After a series of lengthy discussions about the state of the project, the co-authors developed a particular perspective on: the concept of learning informing the project; the state of the project group; and the cyclical nature of the research project.

#### **5.3.1      *Concept of Learning***

Implicit within the learning dimensions framework was the integration of two different sets of approaches to organisational learning. The first approach is the more ‘psychological’ approach associated with such writers as Kolb, Senge and Argyris and Schon (Senge, 1992; Argyris and Schon, 1978, Kolb, 1984). The exponents of this view, offer slightly different versions of a common ‘learning cycle’ involving phases of having an experience, reflective observation, abstract conceptualisation and active experimentation. They also provide different explanations of why this learning cycle may be disrupted, and the type of group processes that need to be initiated in order to ensure that learning occurs. The role of external academics or facilitators is commonly seen as that of initiating and running workshops to remove blockages in the learning process and support healthy group interaction and development. The second approach is the more ‘sociological’ view of learning, associated with such schools of thought as the ‘communities of practice’ (Lave and Wenger, 1991), ‘core competencies’ (Dunphy, 1997), and the extension of the psychological approach into investigations of the ‘infrastructural’ supports for group learning (Senge et al, 1999). Such approaches address the broader structural conditions and practices that shape, constrain and enable learning experiences and opportunities in group settings.

In the process of clarifying the differences between these approaches, the authors recognised that the learning dimensions identified by Andrew cut across these approaches. In part, the academic contribution to be made by Andrew may be the use of the dimensions as a means for integrating the insights of these different approaches in a structured approach to supporting learning within projects.

#### **5.3.2      *The State of the Project Group***

At the same time, despite Andrews conduct of the individual and group reflective learning initiatives, the members of the project team seemed unable to move the group beyond a relatively traditional subservient ‘command and control’ role in relation to the Plant Manager. Moreover, they did not appear to be able to explicitly raise these issues in an open and critical discussion with each other and the Plant Manager. In traditional OD terms, the group appeared to be locked

within 'single loop' learning, concerned with modifying elements of their behaviour in relation to subordinates, putting little thought or energy into reflective 'double loop' learning on their behaviour within and as a group, and how this could be made more productive. Much of their activities in group sessions were textbook cases of what Argyris and Schon have identified as the 'defensive thinking' and 'defensive routines' involved in preserving 'Model 1' forms of thought and learning, and what Wheatley (1994) and Stacey (2000) have more recently identified as the predominant form of thought and activity in complex organizations dominated by mechanistic forms of thought.<sup>3</sup> Thirdly, neither author felt optimistic about the ability of the group to break out of these patterns of behaviour, if the intervention in

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<sup>3</sup> The plant manager has used his hierarchical position, his reputation and his forceful and emotional personality to impose upon the group of managers the task of transforming their actions and roles from one of traditional autocratic and hierarchical managers to one of facilitative and energetic leaders. In so doing, he has emphasised that they play an important modelling role in the cultural change, if they act to defend their own jobs, pursue their own interests and treat their peers with suspicion, act defensively in arguments and do not support open dialogue and active listening, then this will be noticed and reproduced by those below them. He encouraged them to share openly and freely with each other their ideas, thoughts and feelings, and gave them responsibility for change initiatives and the redesign of their own roles and responsibilities.

As a result of this drive, and their previous exposure to 'leadership' training, this group have espoused a strong commitment to the idea of transforming their behaviour in the desired directions. Moreover, they have started, with more or less success, initiatives to change the way they manage. However, despite these successes, their behaviour or 'theory in use' during group meetings presents a different image. They have commented that they feel personally ill-equipped to lead and initiate group learning activities, or redesign their jobs. A number of references have been made to the Plant Manager already having ideas in his mind, and the managers often appear to be waiting for him to make decisions. The lack of resistance, in fact even an apparent sense of relief, following on the Plant Manager's decision to impose a new 8 circle organisational structure, supports this observation. They often refer in asides to the unproductive nature of the group, its inability to make decisions, the lack of initiative and productive discussion etc. Yet they rarely, if ever, raise such issues for discussion in the group. The fear of embarrassing each other, alienating the Plant Manager through criticisms of his style, combined with background acceptance of underlying disagreements between them and fixed views of each others competencies (and, possibly more importantly, lack of competence), has resulted in little self-initiated group development towards the type of leadership team desired by the Plant Manager. It was earlier often commented that it was only the HR officer, who has subsequently left, who really challenged and questioned, the Plant Manager in his sometime looseness and, at other times, what appears to be uncharacteristic autocratic and irritated behaviour. The lack of dynamism in the group, and apparent subservience to the Plant Manager, has been observed by a number of lower level employees. There is a perception that the group does not often exercise initiative, and when it does and the Plant Manager disagrees, the group decision is overridden. There is also a perception that there are too many managers for the managerial tasks required and each are playing games to protect their jobs.

It is as if the group has had the job of moving beyond a command and control model of managing imposed upon them in a command and control fashion, and they are responding in the traditional fashion. The job has been imposed by a Plant Manager using his position in the hierarchy, the managers are motivated purely by the task in order to obey the command (to become 'leaders'), and they are responding to short term demands and rewards in relation to the achievement of this task. The result, as Stacey observed of such patterns, has been the frequent suppression of negative feelings and judgements about people's performance in the group – even while the Plant Manager has explicitly talked about the importance of making such judgements and creating a safe environment for their public airing and discussion. Judgements are not therefore publicly exposed and tested, upsetting others too much is avoided, and evaluations are made more or less privately and often covered up in public (except for infrequent emotional outbursts of criticism). The pattern has therefore become one of increasing espoused theory of the need for everyone to become leaders and exercise initiative, yet a theory in use that involves individuals being fearful of responsibility, reproducing many traditional win/lose dynamics, and implicit collusion in saving face.

improving their learning dynamics was restricted to the existing format for individual interviews and reflective group learning workshops.

### 5.3.3 *Cyclical Nature of the Research Project*

The co-authors soon came to some agreement over the possible nature of the project's contribution to academic discussions of learning, and the existing state of the group – although Richard was slightly more critical of the overall lack of learning exhibited by members of the group. However, they initially disagreed over the value of the current research as an integrated action research project, and the desirable next stage of the project. Andrew felt that the members of the group were more or less satisfied that they had gained value from his reflective interventions. Moreover, he felt they were the 'clients' of his action research activity, not a peripheral interested stakeholder separate from the immediate research project. As such, he felt that their perspectives of the success or otherwise of his intervention was the most appropriate measure someone could place upon the research project. In part also, his focus on the learning architecture was about increasing the probability that the group would move from a model one to a model two type person – certainly not a focus on directly facilitating a shift to that desired state. As he stated: "*I have to accept the condition that they are in*". He felt that he had neither the training nor the time available to work with the group and the Plant Manager to directly intervene and assist them in improving the psychological learning effectiveness of the group. Also, he believed that his fieldwork had been successful in assisting in the development of the learning dimensions, and in observing their effect when used to support reflective learning in the project team. He was therefore keen to leave the field and concentrate on further theoretical development of the learning dimensions, and the write up of his Ph.D.

Richard, on the other hand, was concerned that the Plant Manager, as sponsor of the research, would not have been greatly assisted in his task of increasing the learning potential of the group, and that a withdrawal from the field would represent a tendency for the project to 'spin off' into a more traditional academic project that subordinated the needs of the client to the academic demands of writing up a Ph.D thesis. He was also sceptical about the academic value of the data derived from applying the learning dimensions to support individual and group reflective learning, given the lack of 'double loop' learning from the group in regard to its transformation of its leadership role – as witnessed by him.

The conflicting interpretations offered by Andrew and Richard raised serious issues about the future of the project. If Andrew pursued his proposal, then he risked letting down the client group and, possibly, employing a weak data set in

his final Ph.D. On the other hand, the clients may have become quite satisfied with his partial contribution, the value of his theoretical framework and data to the project management learning literature may prove to be quite enough to justify a Ph.D, and he could end up with a successful project completed within the planned time frame. If Richard, based on his criticisms, pressed Andrew to spend more time with the group to help overcome their defensive routines, and conduct another round of fieldwork following the (desired) improvements in group learning, he might be applying too much pressure to a Ph.D student and, given the time constraints, end up with a highly stressed researcher unable to adequately fulfil the demands of either the client or academic audiences. On the other hand, if successful, Andrew's 'extended' project could make a major contribution to both the clients and the academic communities. So, where to from there, given the existence of time and resource constraints and the desire to conduct successful action research?

In preparation for this conference, Andrew and Richard developed a plan for the next stage of the action research. Academically, the research on the learning dimensions would be more clearly focused on the way in which these dimensions supported, or could be made to further support, the integration of both the 'psychological' and 'sociological' approaches to learning within project teams. In regard to the client group, Andrew would initially end his fieldwork as planned, but would collaborate with Richard in preparing a final reflective workshop for the group and the Plant Manager. The focus of this final workshop would be to get the group and the Plant Manager to address the dilemmas it was facing in its group learning, and as far as possible conceptualise and explore the dilemmas and issues involved using the learning dimensions framework. Richard, rather than Andrew, would however be responsible for tailoring the final workshop. Both Richard and Andrew also agreed to leave open the possible need for another period of fieldwork following the more extensive and detailed elaboration of the learning dimensions model by Andrew.

This case reveals a number of things. Firstly, there was a clear danger that the action research could fail to satisfy either the industry clients or academic audiences, and that it would revert to either a more traditional consultant or academic project. Secondly, there was also a danger, that if the need to produce good action research was pursued too strongly, the strain on available time and resources might result in a relapse into doing 'bad action and bad research', with Andrew appearing as a tinkerer/dilettante rather than as a professional bricoleur. Thirdly, the bricoleuring activity, clearly involved complex issues surrounding which part of the client system was most important, the level and type of academic audience that should be addressed and so on. Fourthly, the use of Richard as 'back up' actually supported the loose action research project design established at the outset i.e. a decision to locate Andrew's case study within a plant

already under investigation and with links to the research team. On numerous occasions members of the change centre have found that an initial strategy that duplicated the use of resources was often crucially important as the project progressed in addressing emergent problems. Fifthly, and finally, research is an inherently uncertain process, and resolving these issues in such a manner is always subject to what Machiavelli referred to as the goddess Fortuna. Knowledge of how to act in these circumstances is more akin to the uncertain Aristotelean form of knowledge as *phronesis* ('wisdom in action') than more formal science, and neither of the authors are certain that they have 'got it right'.

## **6. Conclusion**

As outlined above, there are numerous pressures facing action researchers concerned to fulfil the demands of both clients and academia. The presentation of project activities and outcomes in academic forums assists ongoing reflection on the academic contribution of an action research project and, from the academic point of view, helps keep the project within the productive 'funnel' of successful action research. Of equal, if not greater importance, than the discussion of *content* issues (empirical data collected, theoretical models developed etc.) is the discussion of *process* issues i.e. how the action researchers have designed, implemented and managed the action research project and acted in context to reconcile the conflicting demands of clients and academia.

It is the argument of this paper that academic reflection on such process issues should recognise action research as a more or less informed practice of improvisation and bricolage. It is further argued, that an improved understanding of such practices is a worthwhile object of knowledge, albeit of the kind of knowledge captured in the traditional Greek idea of *phronesis* ('practical wisdom') (Alvesson and Deetz, 2000: 146; Gadamer, 1975). Academic forums discussing such practices need to create the kind of learning space referred to by Argyris and Schon as a 'Model 2' environment, something that is often difficult to sustain in the often competitive and cut and thrust world of academic debate. Unless such a more or less 'safe' environment is created, academics are likely to prepare and deliver presentations as variations on heroic 'success stories', rather than openly communicate dilemmas and problems in a way that facilitates greater understanding and contributes to improved professional effectiveness. The case study presented in this paper is intended as a contribution to supporting such reflection.



Was the action researcher initially under-prepared for undertaking the project when the opportunity became available? Was the decision not to intervene in the early stages of the project a valid one? Was the subsequent intervention plan well planned and executed? Were the potential problems facing the project of major concern? Were the early and later solutions to these problems appropriate? What lessons can be learnt from the actions taken (or not taken) as an aid to improving the professional bricoleuring practices of action researchers?

If this paper succeeds in promoting a productive discussion of such issues, through both its emphasis on the importance of using academic forums in this manner and in providing a useful case for discussion, it will have fulfilled its purpose. This is not an argument for a focus on 'practical' issues, but for understanding, communication and reflection upon action research practice as an area of important knowledge production. In the tradition of phronesis as practical wisdom, Lewin's dictum may be reversed, for there may be nothing so theoretical as a good practice.

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